

Application No. 10/796,800
Paper Dated: February 7, 2006
In Reply to USPTO Correspondence of September 7, 2005
Attorney Docket No. 388-043647

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. Please cancel claim 15 without prejudice. Please amend claims 1, 4, 5, 10, and 11 and add new claims 20-25 as follows:

Listing of Claims

1. (Currently Amended) A work-vehicle cabin having an air-conditioning unit, comprising:

a roof unit;

a downwardly bulging ceiling portion constituting a part of the roof unit, the ceiling portion located in a forward region of the cabin;

a heater provided in the ceiling portion;

an evaporator provided in the ceiling portion and arranged adjacently rearwardly of the heater; and

a pair of forward air-supply openings provided in the ceiling portion and respectively disposed laterally close to and on either side of the heater for feeding allowing conditioned air to be fed to the inside of the cabin.

2. (Original) The work-vehicle cabin according to claim 1, wherein said roof unit includes an inner roof portion located on the inner side and an outer roof portion located on the outer side of the inner roof portion, the roof unit includes on a lateral side thereof a lateral air-supply opening for feeding the conditioned air to the inside of the cabin and a lateral air-conditioning duct for guiding the conditioned air to the lateral air-supply opening bound between the inner roof portion and the outer roof portion.

3. (Original) The work-vehicle cabin according to claim 2, wherein forwardly of the lateral air-conditioning duct, there is provided a forward air-conditioning duct for guiding the conditioned air from the air-conditioning unit, a feeding portion of the forward air-conditioning duct and a forward receiving portion of the lateral air-conditioning duct are respectively formed as cylindrical portions, a cutout is formed at a leading end of a large-diameter one of the cylindrical portions of the feeding portion of the forward air-

conditioning duct and the forward receiving portion of the lateral air-conditioning duct, the small-diameter one of the cylindrical portions of the feeding portion of the forward air-conditioning duct and the forward receiving portion of the lateral air-conditioning duct is inserted and engaged into the other large-diameter cylindrical portion, and a cover member for covering said cutout fixes said feeding portion or said forward introducing portion acting as said large-diameter cylindrical portion under said inserted engaged condition.

4. (Currently Amended) ~~The work vehicle cabin according to claim 2A~~
work-vehicle cabin having an air-conditioning unit, comprising:

a roof unit, wherein said roof unit includes an inner roof portion located on the inner side and an outer roof portion located on the outer side of the inner roof portion, the roof unit includes on a lateral side thereof a lateral air-supply opening for feeding the conditioned air to the inside of the cabin and a lateral air-conditioning duct for guiding the conditioned air to the lateral air-supply opening bound between the inner roof portion and the outer roof portion;

a downwardly bulging ceiling portion constituting a part of the roof unit;
a heater provided in the ceiling portion;
an evaporator provided in the ceiling portion and arranged adjacently rearwardly of the heater; and

a pair of forward air-supply openings provided in the ceiling portion and respectively disposed laterally of the heater for feeding conditioned air to the inside of the cabin,

wherein forwardly of the lateral air-conditioning duct, there is provided a forward air-conditioning duct for guiding the conditioned air from the air-conditioning unit, a feeding portion of the forward air-conditioning duct and a forward receiving portion of the lateral air-conditioning duct are respectively formed as cylindrical portions, a cutout is formed at a leading end of a large-diameter one of the cylindrical portions of the feeding portion of the forward air-conditioning duct and the forward receiving portion of the lateral air-conditioning duct, the small-diameter one of the cylindrical portions of the feeding portion of the forward air-conditioning duct and the forward receiving portion of the lateral air-conditioning duct is inserted and engaged into the other large-diameter cylindrical portion, and a cover member for covering said cutout fixes said feeding portion or said forward

introducing portion acting as said large-diameter cylindrical portion under said inserted engaged condition.

5. (Currently Amended) A work-vehicle cabin having an air-conditioning unit, comprising:

an air communicating passage for guiding air introduced through an outdoor air introducing opening to the air-conditioning unit;

an air-supply opening for feeding conditioned air conditioned by the air-conditioning unit to the inside of the cabin;

an air circulating opening communicating between the inside of the cabin and the air communicating passage, air inside the cabin being introduced through the air circulating opening to the air communicating passage and then conditioned by the air-conditioning unit, which then returns the conditioned air through the air-supply opening to the inside of the cabin;

an indoor/outdoor air switchover damper for selectively providing a first condition in which the damper closes said air circulating opening for guiding the outdoor air introduced through the outdoor air introducing opening to the air-conditioning unit via the air circulating passage and a second condition in which the damper opens said air circulating opening and blocks air from said outdoor air introducing opening for inhibiting introduction of the outdoor air into the air circulating passage;

said indoor/outdoor air switchover damper including;

a shielding portion which can be gaplessly attached to an opening edge of at least said air circulating opening and which is elastically deformable, said shielding portion having elasticity that allows said shielding portion to elastically deform when a door of said work-vehicle is opened and shut, wherein the shielding portion has a first surface that abuts a peripheral area of the air-circulating passage to seal the air-circulating passage when the indoor/outdoor air switchover damper is in the first condition, and a second surface, formed on an opposite side of the first surface, that blocks the air communicating passage when the indoor/outdoor air switchover damper is in the second condition; and

a pivotable base end portion for supporting the shielding portion; and

a switchover mechanism for switching over the indoor/outdoor switchover damper between said first condition and said second condition.

6. (Original) The work-vehicle cabin according to claim 5, wherein said shielding portion comprises an assembly of a plurality of rubber plates affixed to each other, leading ends and base ends of the rubber plates being bonded together, intermediate portions between the leading ends and the base ends thereof being un-bonded.

7. (Original) The work-vehicle cabin according to claim 5, wherein said shielding portion comprises an assembly of a plurality of rubber plates affixed to each other, base ends of the rubber plates being bonded together, leading ends thereof being un-bonded.

8. (Original) The work-vehicle cabin according to claim 5, wherein said shielding portion comprises a single rubber sponge plate.

9. (Original) The work-vehicle cabin according to claim 5, wherein a detent mechanism is provided at said base end portion for setting an opening condition of the shielding portion.

10. (Currently Amended) The work-vehicle cabin according to claim 5, wherein at the base end portion, there are provided a manual switchover lever as a switchover control mechanism and a detent mechanism having an engaging recess ~~of said detent mechanism~~.

11. (Currently Amended) A work-vehicle cabin having an air-conditioning unit, comprising:

a roof unit having a side edge extending in a fore and aft direction;
a ceiling portion constituting a part of said roof unit;
right and left side portions;
an openable window[s] provided at one of said right and left side portions, said windows being openable to the outer side;

an eaves portion formed as a lateral extension of said roof unit, said eaves portion projecting laterally with respect to the side edge for covering said openable window[s] from above when the window[s] ~~are~~is opened;

a heater provided in said ceiling portion;
an evaporator provided in said ceiling portion; and
a forward air-supply opening provided in said ceiling portion for feeding conditioned air to the inside of the cabin.

12. (Previously Presented) The work-vehicle cabin according to claim 5, further comprising a lateral air-conditioning duct communicating the air-conditioning unit with the air-supply opening, wherein at least a part of said air communicating passage is located above the lateral air-conditioning duct.

13. (Previously Presented) The work-vehicle cabin according to claim 12, wherein the air communicating passage spans substantially the entire lateral width of an inner roof portion and extends forwardly at least to the air-conditioning unit.

14. (Previously Presented) The work-vehicle cabin according to claim 12, wherein the lateral air-conditioning duct extends in a fore and aft direction near a lateral end of an inner roof portion, and wherein the air communicating passage covers substantially an entire upper surface of the lateral air-conditioning duct.

15. (Canceled)

16. (Previously Presented) The work-vehicle cabin according to claim 5, wherein a value obtained by dividing a fore and aft length of the shielding portion by a fore and aft length of the base portion is greater than 1/4.

17. (Previously Presented) The work-vehicle cabin according to claim 16, wherein a value obtained by dividing a fore and aft length of the shielding portion by a fore and aft length of the base portion is greater than 1/3.

18. (Previously Presented) The work-vehicle cabin according to claim 5, wherein said shielding portion has a plurality of rubber plates.

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19. (Previously Presented) The work-vehicle cabin according to claim 5, wherein the fore and aft length of the shielding portion is less than the fore and aft length of the base portion.

20. (New) A work-vehicle cabin having an air-conditioning unit, comprising:

a roof unit;

a downwardly-bulging ceiling portion constituting a part of the roof unit, the ceiling portion located in a forward region of the cabin;

a partition wall that is provided to the ceiling portion and that separates conditioned air from unconditioned air;

a heater provided in the ceiling portion, wherein at least a part of said heater is positioned forwardly of a forward wall of the partition wall and feeds conditioned air forwardly of the partition wall;

an evaporator provided in the ceiling portion and arranged adjacently rearwardly of the heater; and

a pair of forward air-supply openings provided forwardly of the separation wall in the ceiling portion and respectively disposed laterally of the heater for allowing conditioned air to be fed to the inside of the cabin.

21. (New) The work-vehicle cabin according to claim 20, wherein the heater is attached to the partition wall such that the entire heater is located forwardly of the partition wall.

22. (New) The work-vehicle cabin according to claim 10, wherein the detent mechanism includes a ball member capable of engaging the engaging recess and a spring that urges the ball member toward the engaging recess.

23. (New) The work-vehicle cabin according to claim 11, wherein the openable window is pivotable about a vertical axis located at a rear of the openable window such that a forward edge of the openable window can open laterally.

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24. (New) The work-vehicle cabin according to claim 11, wherein the openable window stays within an outer edge of the eaves portion in plan view when the openable window is opened to its maximum degree.

25. (New) The work-vehicle cabin according to claim 1, wherein the ceiling has a front end portion and an opposite rear end portion adjacent a rear window with the heater, the evaporator and the pair of forward air-supply in the front end portion of the ceiling, and the evaporator rearward of the heater and the pair of forward air-supply openings.